

McHENRY COUNTY SOLID WASTE STREAM ANALYSIS

2006



Introduction

Every year, McHenry County gathers data on solid waste and recycling for the purpose of analyzing trends in the solid waste stream. Data for 2006 were collected primarily in conjunction with the licensing of McHenry County waste haulers. Other data came from township road districts and recycling facilities. The following is a summary of that data as well as other solid waste stream developments over the last year.

Plans and Ordinance Updates

There were no new plans or updates in 2006.

Economic and Environmental Updates

An application for a transfer station in Crystal Lake submitted by Waste Management is currently under review by the Illinois EPA. Public hearings were held in 2006 and a final decision from the Illinois EPA is expected by July 2007. The proposed facility would be located on Virginia Road near Illinois Route 31. Under the proposal, up to 1,000 tons of waste materials per day would be transferred within an enclosed building on the site. The waste brought in by garbage trucks would be placed in transfer trailers, which can be transported more efficiently over long distances. Because there are no active landfills in McHenry County, waste generated here is typically hauled greater distances than waste generated in counties with landfills.

The McHenry County Defenders' Recycling Center closed the doors at its Woodstock warehouse this year. The group cited financial reasons for the closure. The Defenders are continuing to offer very limited recycling collection in the City of McHenry, but only once every other month. For McHenry County residents who do not have regular "curbside" recycling service, the closure has meant no longer having a place in the county where they can take all their recyclables. They now must go to multiple locations in order to recycle different materials. Some recyclables are no longer accepted at any drop-off in the county, such as glass and plastics. All McHenry County residents do have the option of contracting regular collection of recyclables. However, because this is an added fee, many choose not to. All residents who live in the county's municipalities have recycling collection service.

The 2006 Data

The majority of data in this report is based on numbers submitted by waste haulers that operate in McHenry County as a part of their annual licensing. Waste haulers are required to provide figures on quantities of discarded materials hauled in McHenry County and to where they are taken. Many haulers do not keep strict records on the specifics of hauled materials. It is not uncommon for reported data to be estimated by a hauler.

Remaining data were submitted by the McHenry County Defenders' Recycling Center, a metal recycling facility and township road district departments, which collect trash from road sides. Some road districts, most notably Algonquin Township Road District, sponsor special collections for items such as paint, tires and Christmas trees.

In 2006, there was one major special event collection. McHenry County College was the site of another Household Hazardous Waste Collection. The event was made possible by the Illinois EPA and the McHenry County Department of Planning and Development. Also participating were McHenry County Division of Transportation, Algonquin Township Road District and McHenry County Defenders. It took 407 55-gallon drums to hold all the hazardous materials collected from 2,166 households during the six-

hour event. An estimate of the weight of materials collected comes to approximately 71 tons, of which most was recycled.

Annual waste stream analysis reports are prepared by the McHenry County Solid Waste Coordinator, a position within the Department of Planning and Development. This position has been held by three people in the last five years. Although every attempt has been made to make data collection and analysis consistent, there is a possibility that small changes in methodology between coordinators has produced inconsistencies in annual totals over that time.

Overview of the Solid Waste Stream

The quantities of materials reported are called "discarded materials" and are comprised of municipal waste, recyclables and compostable materials. In 2006, the reported amount of discarded materials generated in McHenry County was 392,874 tons.

Solid Waste Stream Overview 1999 – 2006

	1999	2000	2001	2002	2003	2004	2005	2006
Total Discarded Materials -in tons	297,488	293,802	305,708	320,981	312,375	335,444	331,370 ³	392,874
Recyclables -in tons¹	105,933	105,013	86,685	108,373	89,881	129,112	84,562 ³	81,506
Recycling Rate	35.6%	35.7%	28.4%	33.8%	28.8%	38.5%	25.5% ³	20.7%
Population²	259,153	260,077	268,208	281,165	286,091	296,389	303,990	312,373
Discarded Materials -pounds/person/day	6.29	6.27	6.25	6.26	6.07	6.20	5.97 ³	6.89

¹ Beginning in 2003, total recyclables include landscape waste hauled to composting sites

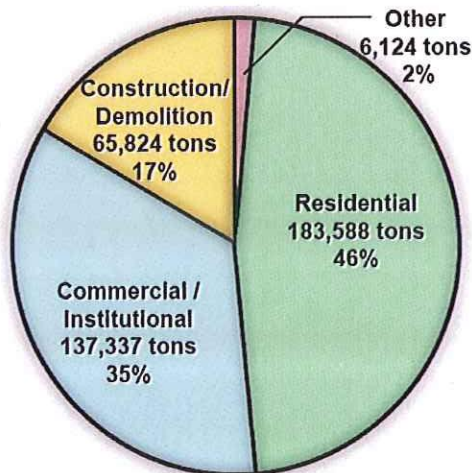
² Estimates from Northeastern Illinois Planning Commission and the U.S. Census Bureau

³ Figures revised based on information received 07/2007 from the waste hauler Groot

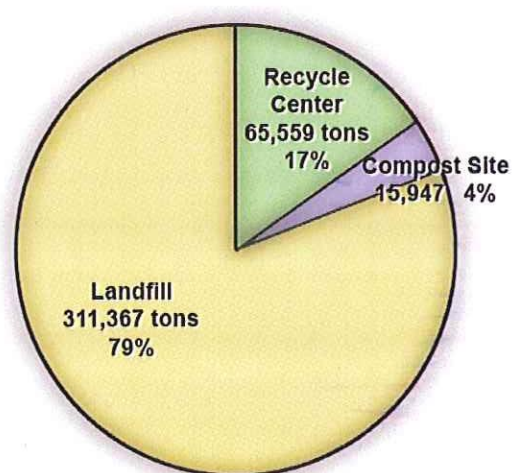
Solid Waste Generation, Disposal, and Recycling

Solid waste amounts are reported by source. The pie chart on the left shows quantities generated by the residential, commercial/institutional and construction/demolition sectors. Discarded materials are collected and transported to one of three possible destinations: landfills, recycling centers or composting sites. The destination of discarded materials in McHenry County is shown in the pie chart on the right.

*Where Discarded Materials
Were Generated*



*Destination of Discarded
Materials*



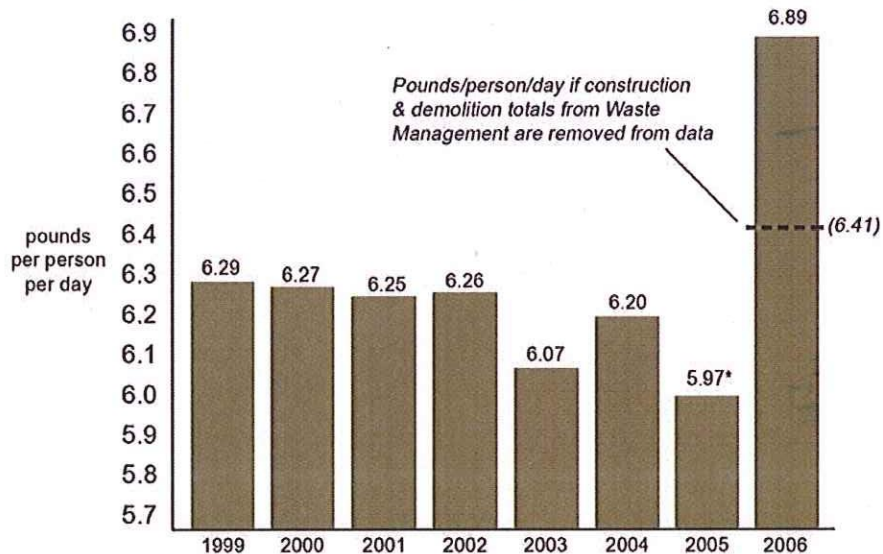
Discarded Materials (in tons) 2006 by Destination and by Where They Are Generated

	From Residential	From Commercial/ Institutional	From Construction & Demolition	Other	Total
Landfill	135,580	118,547	57,223	17	311,367
Recycling Center / Site	30,730	18,757	7,956	4,910	65,559
Composting Site	13,463	33	645	1,197	15,947
Total	183,588	137,337	65,824	6,124	392,873

Waste generation is commonly standardized for comparison by calculating the average number of pounds of waste discarded by each person each day. This is expressed as pounds/person/day (or p/p/d). Based on this expression, 2006 saw a significant increase in waste generation over recent years. If the hauling totals reported by waste haulers are accurate, this would suggest that people are discarding more waste. Or, it could be a sign that the population estimates for the county provided by the U.S. Census are incorrect and therefore throwing off the calculation. However, a look at reported hauling totals over time shows an anomaly in 2006. Waste Management North reported, for the first time, hauling construction and demolition waste. Whether the hauler branched into this new market in 2006 or just failed to report it in previous years, the result is the inclusion of 27,557 tons of waste in addition to regular totals. This represents 7% of total waste generated and corresponds to the majority of the increase in the county's p/p/d figure for 2006.

Discarded Materials in Pounds per Person per Day

Amount of waste generated on average by every person in McHenry County each day



Recycling and Recycling Rates

Recycling rates were down in 2006. The overall average of 20.7% is below the stated goal of the county and was a significant drop from previous years. Recycling rates for most haulers were relatively constant over the last year, however. Waste Management North was a notable exception with an overall recycling rate that fell from 44.1% to 16.4%.

2006 Recycling and Recycling Rate by Generation Source

Generation Source	Discarded Materials in tons	Recyclables in tons*	Recycling Rate
Residential	183,588	48,008	26.2%
Commercial/ Institutional	137,337	18,790	13.7%
Construction & Demolition	65,824	8,601	13.1%
Other**	6,124	6,107	99.7%
Total / Overall Average	392,873	81,506	20.7%

* includes landscape waste that was recycled at composting sites

** includes waste collected by townships, recyclers, and other special collections

Trend of Recycling Rates 2003-2006 by Generation Source

Source of Discarded Materials	Percent of Total Discarded Materials Recycled*			
	2003	2004	2005**	2006
Residential	35.7%	45.0%	34.4%	26.2%
Commercial / Institutional	22.2%	21.3%	16.0%	13.7%
Construction / Demolition	6.3%	47.6%	9.3%	13.1%
Other***	n/a	n/a	n/a	99.7%
Overall Average	28.8%	38.5%	25.5%	20.7%

* includes landscape waste that was recycled at composting sites

** 2005 figures revised based on information received 07/2007 from the waste hauler Groot

*** includes waste collected by townships, recyclers, and other special collections (prior to 2006 this data was combined with other totals)

Total Discarded Materials by Generation Source 2001-2006

Source of Discarded Materials	Total Discarded Materials by Source					
	2001	2002	2003	2004	2005**	2006
Residential	188,805	210,224	182,870	146,714	183,957	183,588
Commercial / Institutional	95,856	88,735	103,901	106,335	116,851	137,337
Construction / Demolition	21,047	22,022	25,604	82,395	30,939	65,824
Other*	n/a	n/a	n/a	n/a	n/a	6,124
Totals	305,708	320,981	312,375	335,444	331,747	392,873

* includes waste collected by townships, recyclers, and other special collections (prior to 2006, this data was combined with other totals)

** 2005 figures revised based on information received 07/2007 from the waste hauler Groot

Of the 39 waste haulers operating in McHenry County in 2006, seven offered regularly-scheduled residential waste collection in 2006. These seven were responsible for the transport of 94% of all residential waste generated in the county and each have contracts with McHenry County communities. A look at the recycling totals of these haulers shows that residential recycling in McHenry County is fairly healthy. Notable is the reported residential recycling rates of both Marengo Disposal and Waste Management North, which have dropped by about half since 2004. However, the current residential recycling rates are still in the range of county goals.

Comparison of Recycling Rates by Haulers that Offer Regular Residential Service

Primary Residential Waste Haulers	2004		2005		2006	
	Overall Recycling Rate	Residential Recycling Rate	Overall Recycling Rate	Residential Recycling Rate	Overall Recycling Rate	Residential Recycling Rate
ARC	19.2%	21.0%	20.3%	33.0%	19.1%	32.1%
Groot/Crown	27.4%	42.8%	20.4%*	46.2%*	22.3%	45.2%
Hebron Disposal	9.7%	21.1%	10.6%	22.7%	10.4%	25.2%
Jensen Disposal	27.2%	30.4%	24.0%	28.9%	26.2%	28.9%
Marengo Disposal	32.6%	40.2%	19.2%	23.7%	19.3%	24.2%
Waste Management -North	44.6%	65.2%	44.1%	62.8%	16.2%	32.5%
Waste Management -South	10.4%	28.9%	16.7%	18.9%	27.6%	30.7%

* Figures revised based on information received 07/2007 from the waste hauler Groot

Communities with Waste Hauler Contracts for 2006

ARC	Lake in the Hills, Trout Valley
Groot/Crown	Prairie Grove, Spring Grove, Cary
Hebron Disposal	Hebron
Jensen Disposal	Richmond, Lakemoor
Marengo Disposal	Bull Valley, Crystal Lake, Harvard, Lakewood, Marengo, Woodstock, Wonder Lake, Union, City of McHenry
Waste Management North	Algonquin, Island Lake, Johnsburg, Fox River Grove, Holiday Hills, Oakwood Hills, Ringwood, Port Barrington
Waste Management South	Del Webb / Sun City

Observations and Analysis

The *Illinois Solid Waste Planning and Recycling Act* calls for each county waste management plan to be designed to recycle 25% of the municipal waste it generates. It is a stated goal of the *McHenry County Residential Recycling Ordinance* that McHenry County achieves and/or exceeds state goals. However, in 2006, McHenry County's recycling rate dropped below county goals for the first time to 20.7%. Recycling rates fell in the residential and commercial sectors, but has shown a steady rise in the construction and demolition sector.

Recycling of residential waste has declined but is still over 25%. Most residential waste haulers have reported consistent and sometimes increasing levels of recycling. But over the last three years, the two largest waste haulers have shown major drops in recycling rates. Marengo Disposal had reported 40% residential recycling in 2004, but just 24% in 2006. Waste Management reported 65% in 2004, and 32% in 2006. It is unclear what the causes of these drops are. It is possible that reporting methods by these haulers have changed in the last few years or perhaps that general public attitudes toward recycling has become more lax.

It is staff's suggestion that a meeting with these and other haulers be held to discuss these possibilities and potential responses to this trend, which may include implementing a standardized reporting method or public education programs.